BACK FROM THE DEEP ... 07/16/2000

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Caption: 2 (B/W) Photos: Astronaut Grissom rode the space capsule Liberty Bell 7 to heights of 118 miles above the Earth to become the second American in space
(B/W) Photo: While Grissom was able to get out of the capsule, a military recovery helicopter failed to lift the waterlogged spacecraft.
(color) Photo: Gus Grissom's Liberty Bell 7 capsule, lost in the Atlantic Ocean in July 1961 and recovered 38 years later, excites and challenges visitors through an exhibit at Kennedy Space Center in Cape Canaveral.
(color) Photo: The Liberty Bell 7 sits on the bottom of the Atlantic Ocean, where it rested until recently for 38 years.
(B/W) Photo by Bryan Bosch: Restoration specialist Greg Buckingham stitches the parachute of Liberty Bell 7 commander Gus Grissom in the Liberty Bell 7 lab at the Kansas Cosmosphere and Space Center.
(B/W) AP PHOTO: A tank holding the Liberty Bell 7 capsule was into a pit area at the Kansas Cosmosphere and Space Center in Hutchinson, Kan. It underwent several weeks of cleaning before going on display so the public could witness its restoration.

BACK FROM THE DEEP

Byline: *By Dan **McCue** of the News staff*

A salvaged Liberty Bell 7 goes on display after 38 years on the Atlantic Ocean's floor

CAPE CANAVERAL - Despite the familiarity of the images, their juxtaposition is at once jarring as it once was threatening.

To the left, in a large black and white photograph, an adult man and small boy - presumably father and son - gaze skyward, looking for something that's already disappeared into infinity.

To the right, an early 1960s living room, complete with cone-shaped lamps, "rabbit ears" atop the television set and a bowling trophy among family momentos.

But it's what's between these two images of a pre-Vietnam America that jogs the senses of visitors to The Lost Spacecraft: Liberty Bell 7 Recovered, the new exhibit at the Kennedy Space Center.

"We will bury you," declares a caption next to a picture of a defiant, fist-pumping Soviet premier Nikita Khrushchev.

With that, the tensions, the fears and what was at stake in the early years of what was then

appropriately called the "space race" stands in bold relief.

After 38 years beneath the Atlantic Ocean, Virgil "Gus" Grissom's Mercury spacecraft, Liberty Bell 7, is back at the Kennedy Space Center for a three-month stay before embarking on a three-year, nationwide tour.

The long-lost capsule, which sank at splashdown after Grissom's space mission in 1961, was recovered last year by salvage expert Curt Newport during a deep sea search, with financial backing from The Discovery Channel and the Kansas Cosmosphere and Space Center.

The exhibit will remain at the space center until Sept. 17.

Among the first to see it, passing those taunting words from Khrushchev at the exhibit's entry way, was Scott Carpenter, the former Mercury astronaut, and like Grissom, one of the original seven men chosen to bear this country's hopes and fears on their fighter pilot-seasoned shoulders.

"I didn't think that was very likely, and I don't think anybody else did either," Carpenter said of Khrushchev's flamboyant assertion.

"But that wasn't really the point," he continued. "It was the competition with the Soviet Union, not fear of it, that was the driving force behind what we did.

"And I think their astronauts, the cosmonauts of that era, would tell you the same thing. We inspired each other."

Only three other men on earth will view the Liberty Bell 7 display in quite the same way Carpenter did last week.

Of the original seven astronauts, three have died. Grissom, in the Apollo launch pad fire of 1967 that also killed astronauts Edward H. White, Roger Chaffee, Donald K. "Deke" Slayton and Alan Shepard, America's first man in space, due to the ravages of brain cancer and leukemia.

But other than John Glenn, who made headlines in 1998 with his return to space after nearly three decades, the remaining Mercury Seven, Carpenter, Walter Schirra and Gordon Cooper are now enjoying various stages of retirement.

When they do make public appearances, as Carpenter did this week, it's to tell their version of the events the recovered Liberty Bell 7 brings so vibrantly back to life.

"The story of the Mercury program, really, is how we broke new ground and how important new truths were revealed by each small step, each successive flight," Carpenter said.

Pausing briefly, he added, "And how each of those new truths lead ultimately to the great technological feat in history, which was flying to the moon."

Born in Boulder, Colo., a full two years before Charles Lindbergh would make aviation history by flying solo from New York to Paris, M. Scott Carpenter has the distinction of being the only human ever to explore both inner and outer space.

After orbiting the Earth three times, being the second American to do it after Glenn, Carpenter took temporary leave from NASA and devoted several years to exploring the world's oceans.

In 1961, however, on the eve of Grissom's flight, Carpenter was a space traveler in waiting, with no official role to play in that mission.

While others were assigned duty either as communication specialists or back-up pilot, he watched Grissom prepare for America's second manned space flight as an interested colleague and a friend.

"I spent the evening before his flight with Gus, had breakfast with, and walked all the way through the suiting up process with him," Carpenter recalled.

"We were kind of like the Three Muskateers back then, you know," he continued. ""All for one and one for all.'

"Some have said there was a really sense of competition between us, but I don't believe there was. In this case, Gus had the flight and we all supported him, and that was the case with each and every one of our journeys."

Carpenter added, "Gus was always a very down-to-earth fellow. He didn't say a lot, but what he did say was important. I'd describe him as a consummate, professional aviator."

The first half of the inter-active Liberty Bell 7 exhibit strives to give visitors a sense of the training and dedication that were par for the course for the first seven astronauts.

It does so through the use of photographs, recordings and a mock capsule and mission control.

The odyssey that led to the exhibit began July 21, 1961, when Liberty Bell 7 carried Grissom on what by all accounts was a successful 15-minute sub-orbital flight into space.

After a textbook-perfect mission, something - no one knows for sure what - went awry. Bobbing on the ocean as Grissom awaited recovery by a Navy aircraft carrier, the capsule was suddenly shaken by an explosion. Its hatch blew off.

Although Grissom escaped unhurt, a Navy helicopter couldn't lift the capsule, which quickly filled with water. The crew had to let it sink.

Asked what he thought at that moment, Carpenter said he doesn't remember, exactly.

"All we knew at the time was that it sank," he said. "But we didn't know why the hatch came off... and we still don't."

Unlike some, among them Guenter Wendt, NASA launch pad supervisor from 1960 to 1975, Carpenter believes the still-unrecovered hatch - perhaps the most infamous piece of space hardware save the defective o-ring that doomed the space shuttle Challenger - might tell the story of what really happened that day.

Wendt, who passionately defends Grissom's reputation, said a team of NASA's best scientists couldn't figure out what happened after many months of analysis, and so its unlikely anyone could do so now.

He also maintains that 38 years on the ocean floor would likely have erased what evidence the hatch took with it to the bottom.

Carpenter, on the other hand, believes the hatch could finally provide the answer to questions that still tarnish Grissom's image in minds of those who believe he panicked after splashdown and "blew" the hatch.

"The problem of course is that hatch will be very hard to locate and I don't think an effort will

ever be made to do it," he said. "It's just too small a target on the bottom of a great big sea."

Asked what he thought happened, Carpenter said he has no theories.

"It's a mystery, plain and simple," he said.

Asked if Grissom ever got over the doubts that surrounded the loss of the Liberty Bell 7, Carpenter said he believes his late colleague did.

"Oh sure," Carpenter said, "he didn't like what happened and resented the suspicion that he did something wrong, but he rose above that quickly."

In addition to viewing the spacecraft itself, which restoration specialists say is 96 percent complete, visitors can see personal effects and equipment that survived the decades under water.

Among the oddities on display are a plastic cup and cigarette butt - apparently left behind by the engineers who built the capsule - a bar of Dial soap and several Mercury dimes.

All of the items were found inside the capsule by the recovery team. They lie alongside such poignant reminders of Grissom as the gloves he wore on his flight, the hatch ejection button from the capsule console, and the grease pencil he was using to mark a post flight checklist as the hatch blew.

But if Grissom and the Liberty Bell 7, the historic spacecraft flown on the second U.S. manned mission, are the main thrust of the 6,000-square-foot exhibit, no less important is the story of the recovery effort itself.

The capsule was recovered last year by deep sea search and recovery expert Curt Newport, with financial backing from The Discovery Channel and the Kansas Cosmosphere and Space Center.

"With a search area on the bottom of the ocean of 24 square miles, success really was in question," said Lynette Nelson, of BBH Exhibits, which is mounting the exhibition. "Newport later likened it to searching for something the size of a refrigerator in an area as big as Manhattan."

Carpenter, who has dived in almost all the world's oceans - the Antarctic and "a couple of seas," are the only exceptions he can think of off-hand - was impressed by the undertaking.

"It's a marvelous demonstration of how far deep water salvage and recovery have come in the past four decades," he said. "We couldn't have done this 38 years ago.

"But we have learned how to do it now and nothing in the deepest part of the ocean is beyond our reach if we want to get it," he continued. "That's the march of underwater technology, and the nice thing is, many of the technologies we worked with in the space program are the same ones being applied to the exploration of the oceans. That's the real legacy of Project Mercury, the new knowledge we brought back begot more new knowledge, and that, in turn, lead to the discovery of even more new and useful information."

Carpenter returned to the Navy in 1965 on a leave of absence from NASA to participate as an aquanaut in the Navy's Man-in-the-Sea program. Carpenter has worked closely with French oceanographer Jacques-Yves Cousteau and members of the Calypso team.

He participated in the Sealab II experiment off the coast of La Jolla, Calif., in the summer of 1965. There he spent 30 days living and working on the ocean floor. During a 45 day experiment he was Aquanaut Team Leader for two of the three teams of Navy men and civilians who lived at a depth of 104 feet functioning on the ocean floor.

In 1966, Carpenter returned to his duties at NASA to become the executive assistant to the director of the Manned Space Flight Center, active in designing the Apollo Lunar Landing Module and EVA (short for Extra Vehicular Activity, or spacewalk) crew training.

On August 10, 1967, he resigned from NASA and returned to the Navy's Deep Submergence Systems Project during the Sealab III experiment. The DSSP was responsible for developing deep ocean rescue, salvage, ocean engineering and directed the Saturation Diving Program. Leg injuries ended his deep-diving career in 1969 and he retired from the Navy that year.

Carpenter said orbiting the Earth changed his perspective of the worlds oceans.

"What you don't see when you are emersed in them is just how truly beautiful and delicate they are," the former astronaut explained. "from space you get a better idea of how interconnected the environment of the Earth is and what a delicate balance must be maintained to keep the Earth healthy.

"The oceans are crucial to a healthy planet," Carpenter added.

Asked which realm he preferred to explore, the lone bearer of the title astronaut/aquanaut, didn't hesitate.

"In many ways the ocean work was more satisfying, because it's an underdog," Carpenter said. "Nobody appreciates it and its peopled by the greatest unsung heroes I know. They put their lives on the line just as surely as all of our heroic spacemen do, but nobody knows or cares about it and that gives me some affection for the people who do this work.

"And work in the ocean is incredibly hard work too," Carpenter added. "It's dark and it's bitter cold. Space flight is not as hard. You have no gravity; no sense of gravity anyway, and everything you do there is easy.

"Underwater is tough work."

Peering into the capsule as thousands, if not millions will do over the next three years, Carpenter saw not the cramped, uncomfortable quarters before him, but a place where he floated weightless among the stars for several hours.

"Seeing this, I get as carried away as all the other visitors," he said. "It is a marvelous thing that has been done. What you have to remember is, this is a laboratory, inhabited for work, and only in a weightless environment. And weightlessness has a way of making small spaces very much larger and more comfortable."

But wasn't it scary, the astronaut was asked.

"Sure, but everybody is scared of something and that's good. There's nothing wrong with being afraid," Carpenter replied. "Fear is a very invaluable emotion. You are a better driver on the freeway because you are a little bit afraid, but you use it. You don't panic. You use the enhanced

vision and the shorter reaction time. Fear does a lot of good things for people. That's why we've got it."

Inevitably, the astronaut is pressed to describe space travel.

"It's the greatest relaxation imaginable," he said. "You could lift a mountain if you could find a place to stand on."

Without question, those now plucking down $24 a pop to see Grissom's capsule - $15 for kids 3 to 11 - are excited all over again about America's manned space program.

A recent poll sponsored by National Geographic Society and cable channel CNBC reveals a majority of U.S. taxpayers feel the same way.

In the poll, 24 percent of the more than 600 Americans surveyed say they support the use of their tax dollars for NASA and the space program "a great deal," while 27 percent said they do "quite a bit." In addition, 28 percent responded with "just a little." Only 17 percent are not in support.

While the public is impressed by past accomplishments in the heavens, an overwhelming number of those polled think more is to be discovered.

Of those polled, 80 percent agree, "we have not gone far enough. (We) still (have) a lot we can learn." Only 17 percent feel space exploration has gone far enough and humanity has learned nearly everything there is to learn.

Americans cite many reasons for investing in the space program, scientific and medical research ranking first with 42 percent support. Learning more about the environment receives 21 percent of the vote, while 11 percent see gains for national defense. Global communication receives 7 percent of the vote, followed by economic benefits (4 percent), creating colonies in space (4 percent) and improving agriculture (3 percent).

Carpenter believes a return of the kind of excitement inspired by Project Mercury is just around the corner.

"Absolutely it's going to happen and I'll tell you exactly when - when we go to Mars," the former astronaut said.

Did he really think we'd do it?

"No doubt about it," Carpenter said. "It is our destiny."

Enhancer: Other